



# ELIMINATION OF FALL OF GROUND FATALITIES **ACTION PLAN (FOGAP)**

Obakeng Rakumakoe



**MINERALS COUNCIL**  
SOUTH AFRICA



**Khumbul'ekhaya**

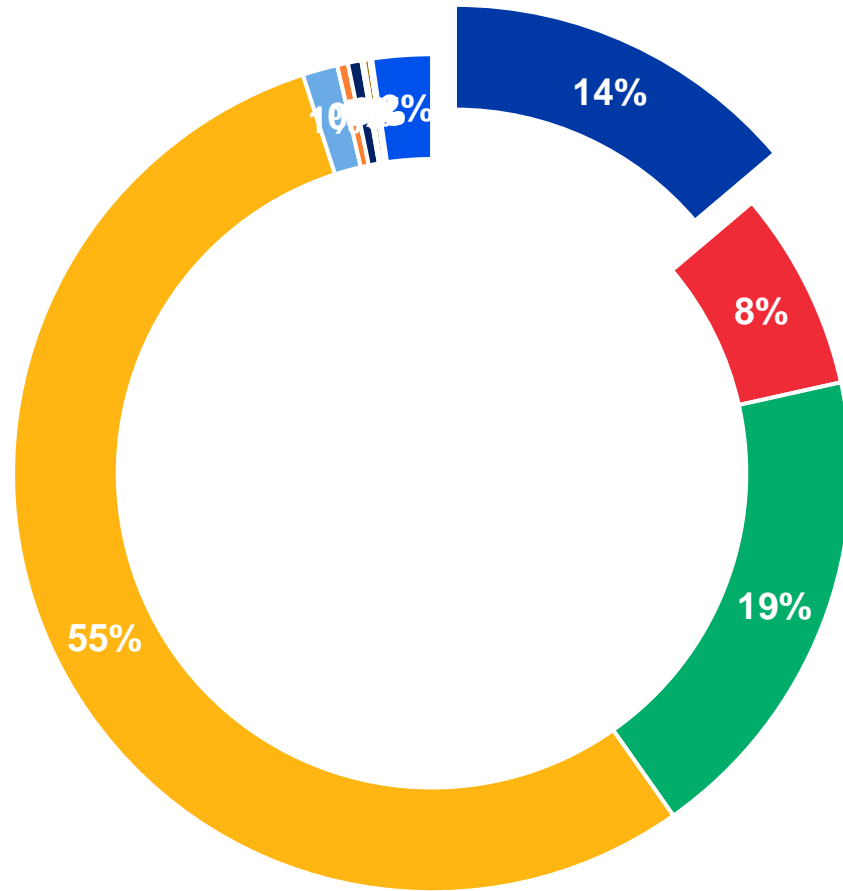
# Content

1. FOG Industry Safety Performance
2. FOG Management Industry Journey
3. Fall of Ground Action Plan (FOGAP)



# FOG SAFETY PERFORMANCE

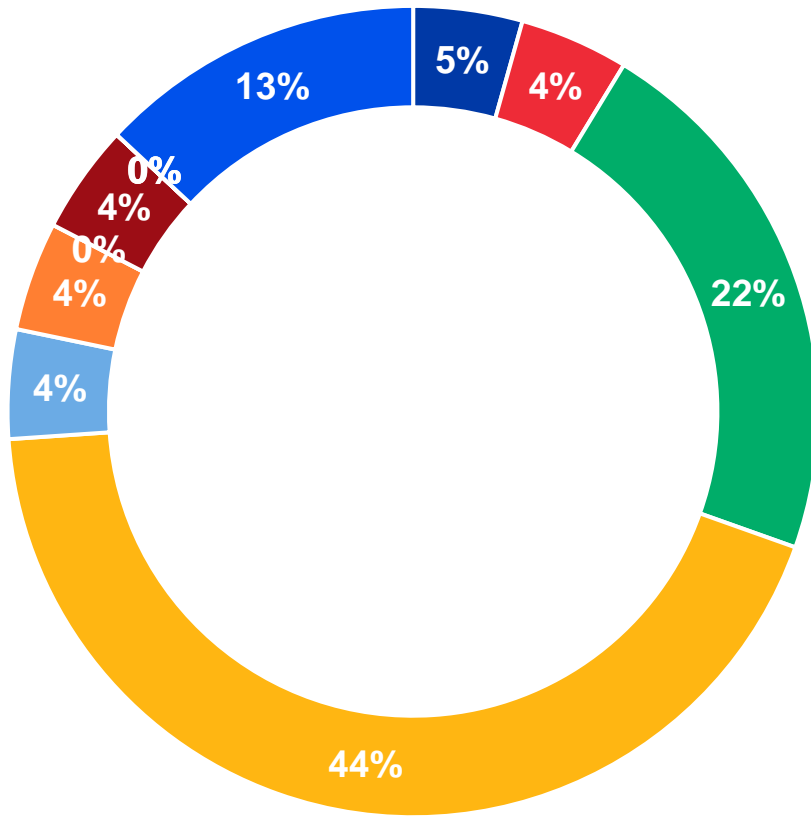
# FOG INJURIES – 2022YTD (11 JULY 2022 DMRE REPORT)



FOG Injuries per commodity	20/06/2021	20/06/2022	% Change
<b>All Commodities</b>	<b>190</b>	<b>120</b>	<b>37%</b> ↓
Gold	112	42	63% ↓
Coal	3	5	-67% ↑
Other	4	4	0% ↑
Platinum	87	82	6% ↓

- FALL OF GROUND/rockfall
- GENERAL
- FIRES
- HEAT SICKNESS
- MISCELLANEOUS (specify)
- MACHINERY
- CONVEYANCE ACCIDENTS (SHAFT/WINZE)
- EXPLOSIVES
- DIVING SICKNESS
- TRANSPORTATION AND MINING
- ELECTRICITY (Not causing fire)
- SUBSIDENCE OR CAVING
- OCCUPATIONAL DISEASES

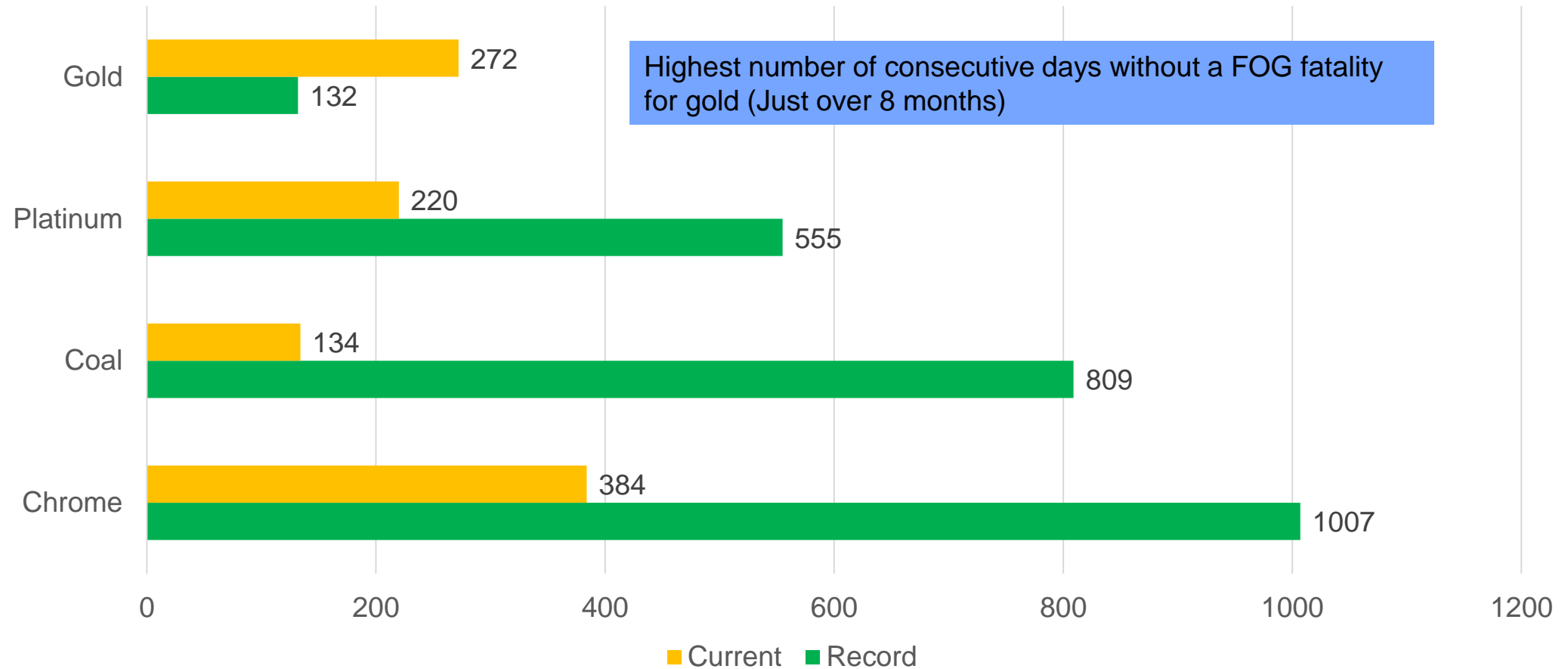
# FOG FATALITIES – 2022YTD (11 JULY 2022 DMRE REPORT)



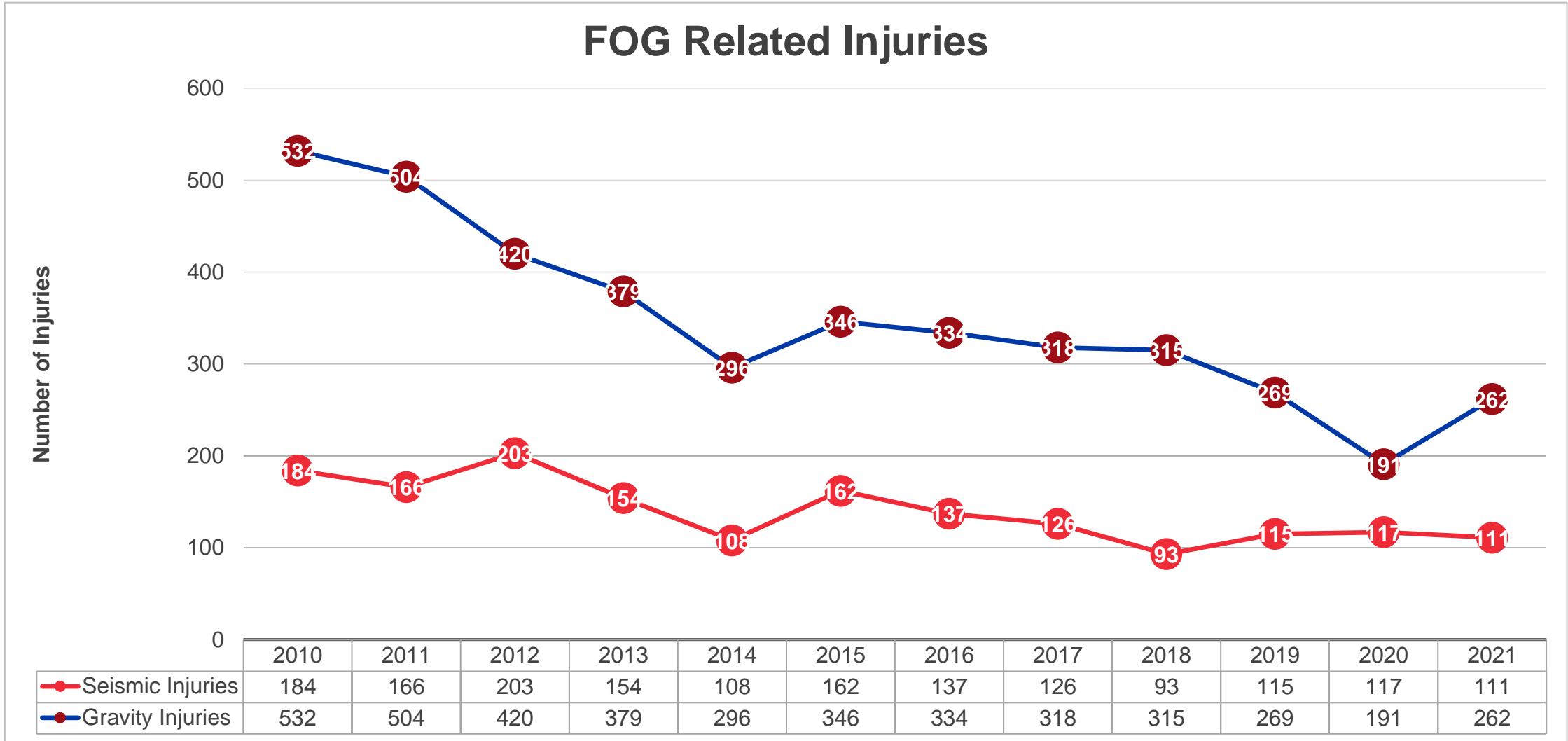
FOG Fatalities per commodity	20/06/2021	20/06/2022	% Change
<b>All Commodities</b>	10	1	90% ↓
Gold	6	0	100% ↓
Coal	0	1	100% ↑
Other	1	0	0%
Platinum	3	0	100% ↓

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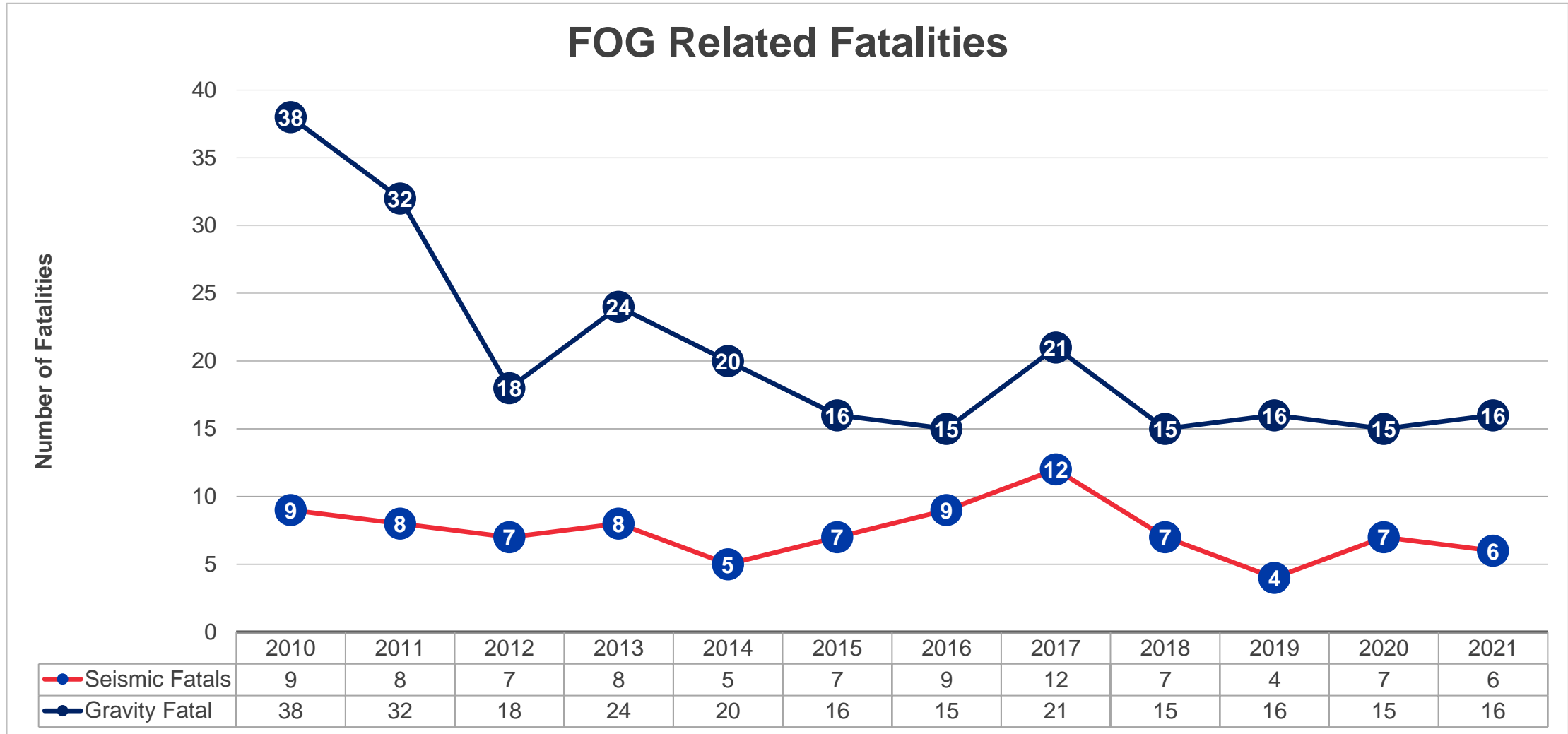
# RECORD NUMBER OF CONSECUTIVE FOG FF (CALENDAR) DAYS 11 JULY 2022



# FOG ROCKFALL VS ROCK BURST INJURIES OVER TIME (2010-2022)



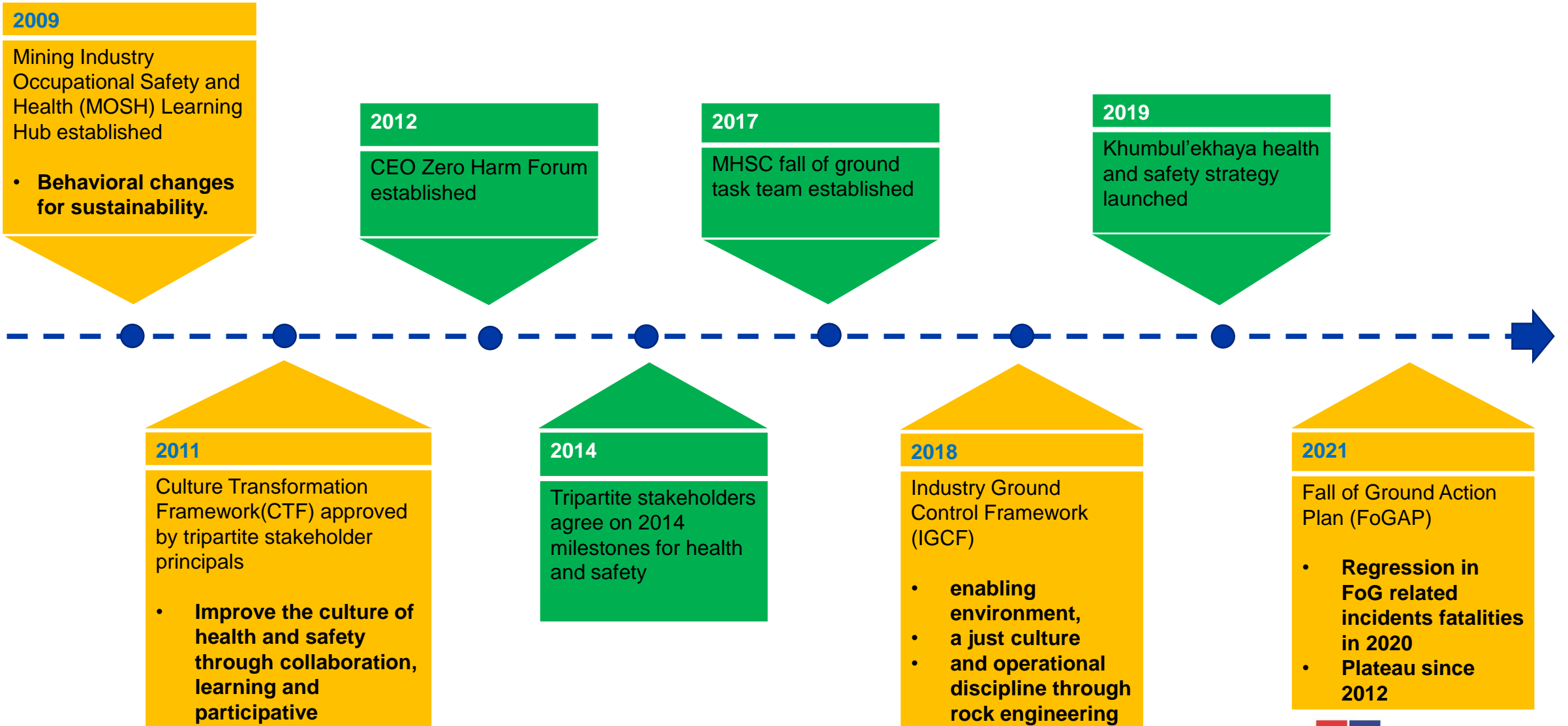
# FOG ROCKFALL VS ROCK BURST FATALITIES OVER TIME (2010-2022)





# FOG Management Industry Journey

# INITIATIVES TIMELINE



# CTF

**01** **Bonus and performance incentive pillar** to prioritise safety ahead of production

**03** **Leadership pillar** encouraging leaders to lead by example and walk the talk of zero harm

**05** **Diversity management pillar** aimed at eliminating racism, genderism and any other forms of discrimination

**02** **Risk management pillar** aimed at reducing risk at its source and investigating root causes

**04** **Leading practice pillar** providing a unified approach to identifying and facilitating the adoption of leading occupational health and safety practices and research outcomes

**06** **Data management pillar** to monitor and evaluate progress of CTF implementation and mine health and safety performance

**07**  
**Integrated mining activity pillar**

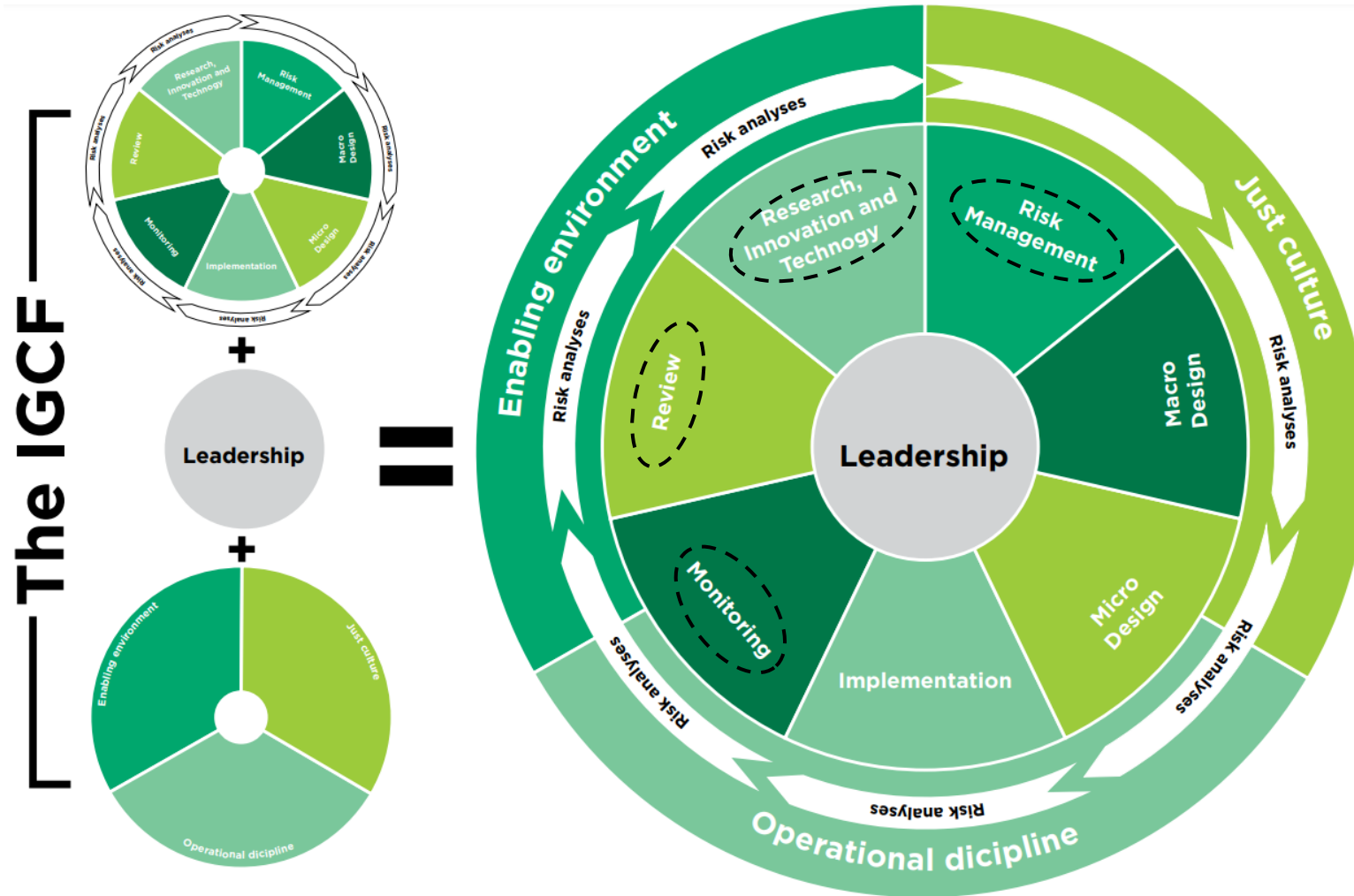
**08**  
**Technology pillar**

**09**  
**Inspectorate pillar**

**10**  
**Tripartism pillar**

**11**  
**Regulatory framework pillar**

# IGCF



Organisations constantly need to enable people to make the right decisions by setting them up to succeed. In doing so, leaders need to understand, unpack and dissect all behavioural drivers and implement countermeasures and controls to create a friendlier enabling environment.

# FOGAP



The industry led by AMMSA, SACMA, SANIRE, RETC, CEOs of Mining are responsible for the formulation of the FOGAP programme









CEOs allocated  
**R46m**  
over 5 years

to address the issues of  
the FOGAP programme



# THE SIX PILLARS

1	2	3	4	5	6
					
Adoption of leading practices	Research and development (R&D)	Skills development	Policy issues	Achieve Zero Harm Production	Implementation and monitoring



# 1 ADOPTION OF LEADING PRACTICES



- Minimise rock mass damage from drilling and blast
- Eliminate risk of people working under unsupported rock
- Improve underground visibility

# 2 RESEARCH AND DEVELOPMENT (R&D)



- Barring technology that will assist in safely and effectively removing loose rock.
- Improved or optimised seismic hazard rating and management systems
- Systems and technology tools that allow real-time monitoring and proactive warning of instability
- Support systems
- Implementing improved drilling accuracy by using jigs/rigs in conventional stoping panels



# 3 SKILLS DEVELOPMENT



Updating learning material for Chamber of Mines Strata Control Certificate and Rock Mechanics Certificate

Short-course programmes for development and exposure of new and current rock engineering personnel

Support efforts within mines to ensure:

- coaching and mentoring young rock engineers

Development and implementation of formal learning programmes and/or qualifications to improve capabilities of production supervisors, mine overseers, and managers to supervise, manage and lead the elimination of FoG fatalities

# 4 POLICY ISSUES



## Work with MHSC Tripartite partners to fast track the:



Guideline for the Mandatory Code of Practice to address Geotechnical Risk

Chapter 2 Regulations on Appointments, Duties & Responsibilities

SAMRASS forms for FOG accidents

# 5 ACHIEVE ZERO HARM PRODUCTION



by improving culture, operational discipline, and establishment of an enabling environment

Implement ways to improve inefficiency and provide sufficient time to implement the control measures to eliminate FOG fatalities effectively

# 6 IMPLEMENTATION AND MONITORING



## Leading implementation:

- Support annual FOG Day of Learning
- Refresh current leading practices
- Sharing of FOG leading practices at Association meetings
- Use leading and lagging indicators to show effect of the FOGAP program
- Provide progress report on implementation of Elimination of FOG Fatalities Action Plan



# THANK YOU

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